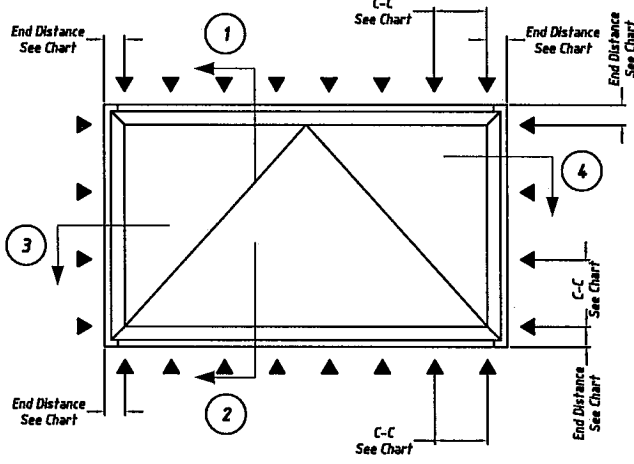
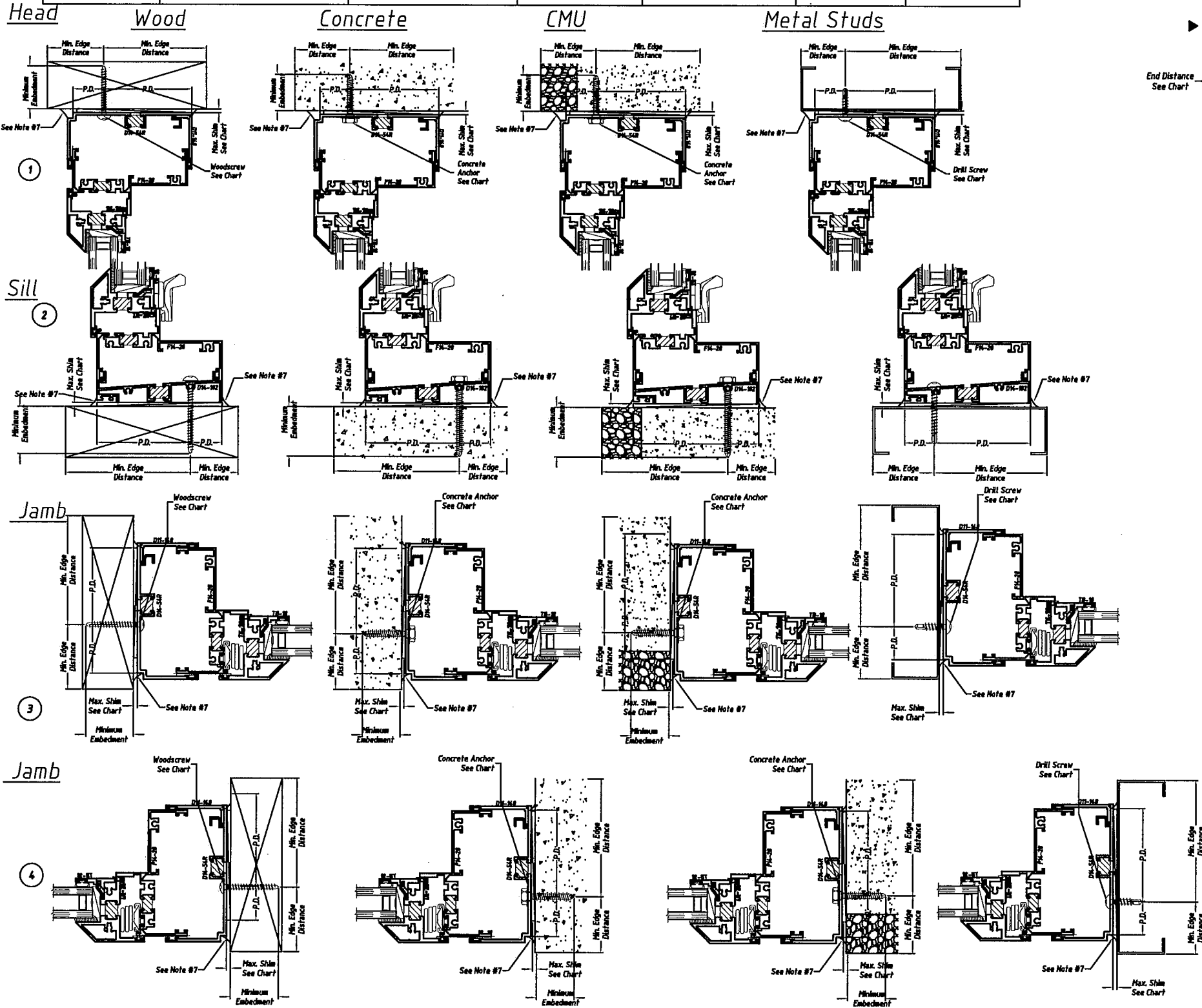


Fastener Installation Requirements

Location	Head and Jamb (Fastener)			Sill (Fastener)		
	Embedment (Min)	ED (Min)	PD (Min)	EB (Min)	ED (Min)	PD (Min)
Wood	#12 Wood Screw @ 2" Max O.C. at Head and Jambs			#12 Wood Screw @ 7-1/4" Max O.C. Spacing		
	1-1/2"	1"	1-1/4"	1-1/2"	1"	1"
Concrete	1/4" Dia. Powers Tapper + @ 7" Max. O.C. at Head and Jambs			1/4" Dia. Powers Tapper + @ 24" Max. O.C.		
	1-3/4"	3"	1-1/4"	1-3/4"	3"	1"
CMU	1/4" Dia. Powers Tapper + @ 2-1/2" Max. O.C. at Head and Jambs			1/4" Dia. Powers Tapper + @ 7-3/4" Max. O.C.		
	1-1/2"	3"	1-1/4"	1-1/2"	3"	1"
Metal Stud	1/4" Dia. Buildex Tek @ 5-1/2" Max. O.C. at Head and Jambs			1/4" Dia. Buildex Tek @ 14" Max. O.C.		
	N/A	3/8"	1-1/4"	N/A	3/8"	1"



- Notes:**
- Installations depicted comply with the International Building Code (IBC), the limitations and calculations within the ANSI/AF&PA NDS (National Design Specifications) 2012 ASD method and the ADM (Aluminum Design Manual) 2010 ASD method for design wind pressures and overall sizes listed in the following table.
  - The products depicted in this drawing have not been proven for resistance to wind-borne debris and are thus approved for impact.
  - Wood screws shall be used for a wood substrate. Wood screw materials and dimensions shall meet the requirements of ANSI / AF&PA NDS (National Design Specifications) 2012 and ANSI / ASME Standard B18.6.1.
  - Self Drilling Screws (Buldex Tek™) shall be used for steel stud substrate. Tek™ screw materials and dimensions shall meet the requirements of ASTM Standard Specifications for Carbon Bolts and Studs ASTM A 307.
  - Powers Tapper™ Anchors shall be used for Concrete and CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in Concrete or Masonry Elements. Tapper™ Anchor Length shall be sufficient to guarantee Embedment listed. Install concrete anchors per manufacturer's instructions.
  - Calculations provided with drawings are based only on tested design pressure for wind loading.
  - Wood buck installations are assumed 2x S-P-F (G=0.42) or denser. Buck width shall be greater than the window frame width. Tapered or partial bucks are not allowed. Wood buck shall be secured to the structure to resist all design loads.
  - Steel Stud installations assume 18 gauge 33 KSI studs and follow AISI Cold-Formed Steel Design Manual (2002 Edition) rules and procedures.
  - Concrete Masonry installations are assumed at least ASTM C90 Hollow masonry units with 1-1/4" wall thickness or normal weight concrete with a minimum compressive strength of  $f_c=3,000$  psi.
  - Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load bearing type.
  - These drawings depict the details necessary to meet structural load requirements. Continuous perimeter seal required.
  - 4" Max. edge distance from corner of window.
  - Provide Glass Setting Blocks at 1/4 points.
  - Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

**RICE**  
**ENGINEERING**  
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Luxemburg, WI 54217  
Phone: 920.845.1042  
Fax: 920.845.1048  
www.rice-inc.com

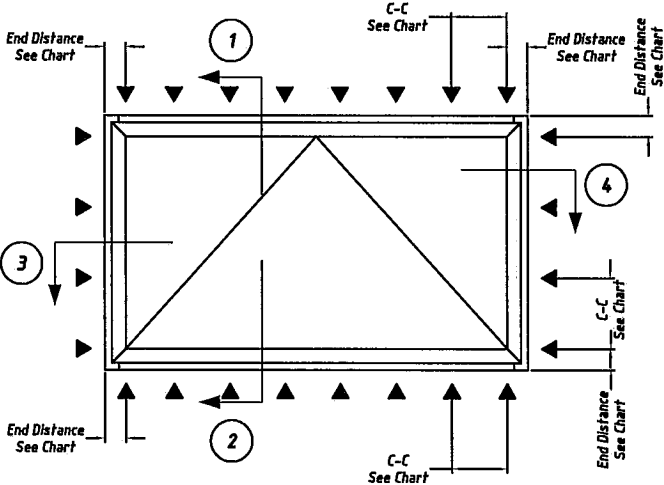
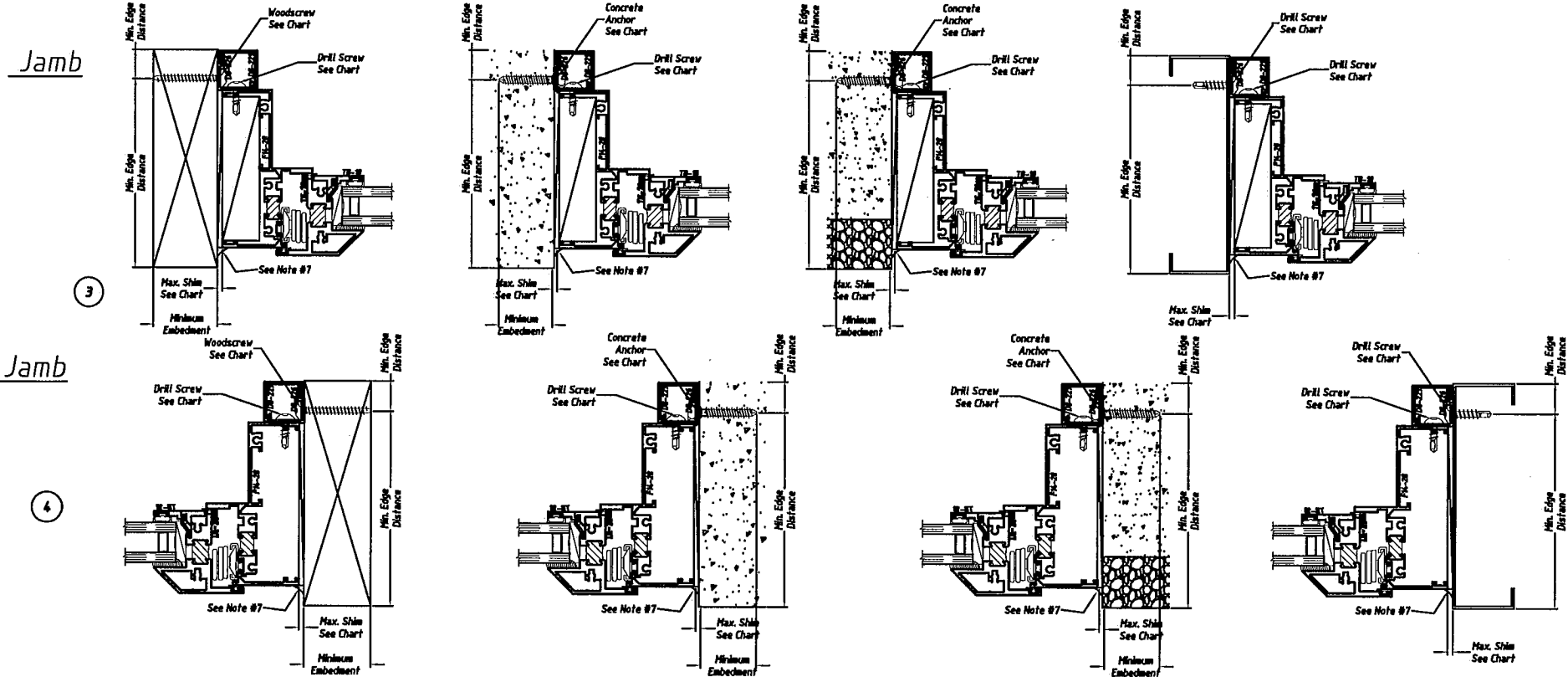
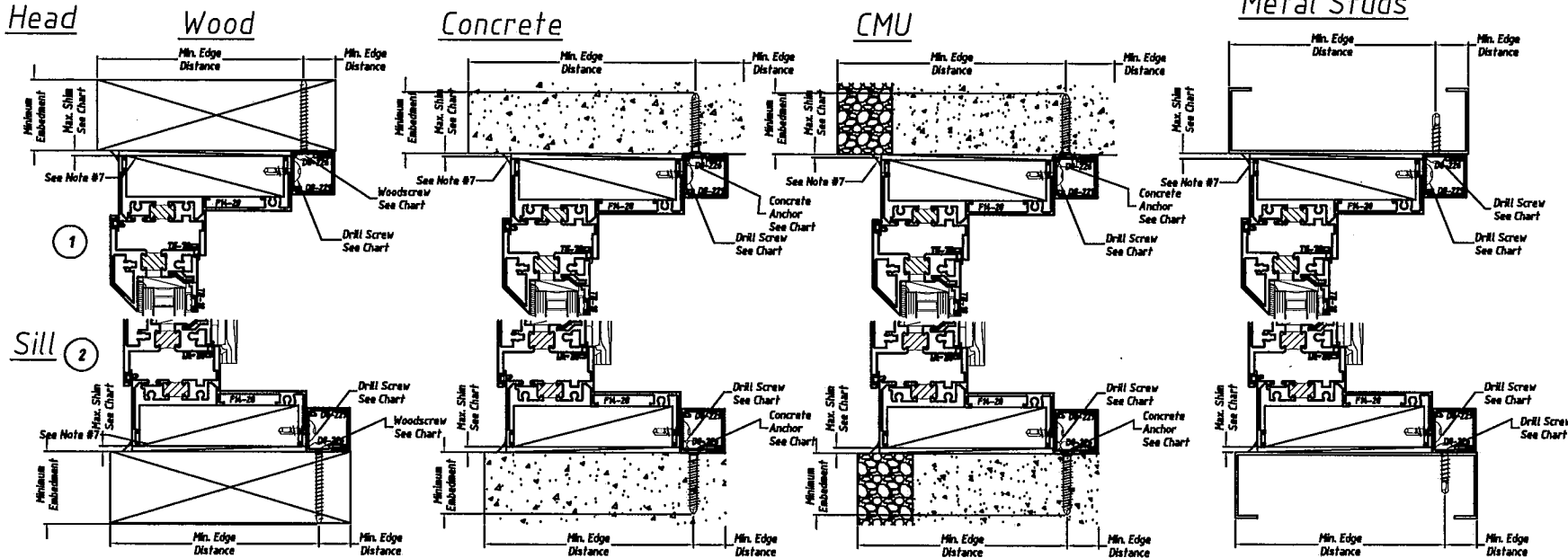
Texas Firm No: F-2183  
L. David Rice  
Registration No: 81248



Oct. 20, 2014

Rev.	Description	Date
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Scale: NTS		Drawn by: K. Snader
Winco Window Co. 6200 Maple Ave. St. Louis, Mo. 63130 PHONE (314)725-8088 FAX (314)725-1419		
WINCO Product: 1450S PO - Receptor		
Configuration: Single Hung		
Certification: Non Impact		

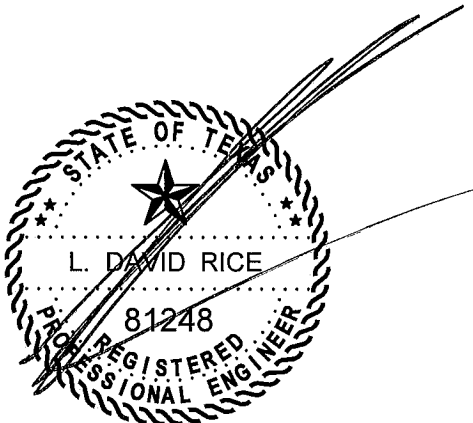
Fastener Installation Requirements		
Location Substrate	(Fastener)	
	Embedment (Min)	ED (Min)
Wood	Fastener #10 SS Drill Screw @ 5-3/4" Max. O.C. Spacing	
	Fastener #12 Wood Screw @ 2" Max O.C.	
	1-1/2"	1"
Concrete	Fastener #10 SS Drill Screw @ 5-3/4" Max. O.C. Spacing	
	Fastener 1/4" Dia. Powers Tapper + @ 6-3/4" Max. O.C.	
	1-3/4"	3"
CMU	Fastener #10 SS Drill Screw @ 5-3/4" Max. O.C. Spacing	
	Fastener 1/4" Dia. Powers Tapper + @ 2-1/2" Max. O.C.	
	1-1/2"	3"
Metal Stud	Fastener #10 SS Drill Screw @ 5-3/4" Max. O.C. Spacing	
	Fastener 1/4" Dia. Buildex Tek @ 3-3/4" Max. O.C.	
	N/A	3/8"



## RICE ENGINEERING

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### Notes:

1. Installations depicted comply with the International Building Code (IBC), the limitations and calculations within the ANSI/AF&PA NDS (National Design Specifications) 2012 ASD method and the ADM (Aluminum Design Manual) 2010 ASD method for design wind pressures and overall sizes listed in the following table.

Type	Maximum Size	Design Pressure
A	60" X36"	+/- 80 psf

2. The products depicted in this drawing have not been proven for resistance to wind-borne debris and are thus approved for impact.  
3. Wood screws shall be used for a wood substrate. Wood screw materials and dimensions shall meet the requirements of ANSI / AF&PA NDS (National Design Specifications) 2012 and ANSI / ASME Standard B18.6.1.

Self Drilling Screws (Buldex Tek™) shall be used for steel stud substrate. Tek™ screw materials and dimensions shall meet the requirements of ASTM Standard Specifications for Carbon Bolts and Studs ASTM A 307.

Powers Tapper™ Anchors shall be used for Concrete and CMU substrate. Anchor materials and dimensions shall meet the requirements of ICC-ES AC106 - Acceptance Criteria for Predrilled Fasteners (Screw Anchors) in Concrete or Masonry Elements. Tapper™ Anchor Length shall be sufficient to guarantee Embedment listed. Install concrete anchors per manufacturer's instructions.

4. Calculations provided with drawings are based only on tested design pressure for wind loading.

5. Wood buck installations are assumed 2x S-P-F (G=0.42) or denser. Buck width shall be greater than the window frame width. Tapered or partial bucks are not allowed. Wood buck shall be secured to the structure to resist all design loads.

Steel Stud installations assume 18 gauge 33 KSI studs and follow AISI Cold-Formed Steel Design Manual (2002 Edition) rules and procedures.

Concrete Masonry installations are assumed at least ASTM C90 Hollow masonry units with 1-1/4" wall thickness or normal weight concrete with a minimum compressive strength of  $f_c=3,000$  psi.

6. Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load bearing type.

7. These drawings depict the details necessary to meet structural load requirements. Continuous perimeter seal required..

8. 4" Max. edge distance from corner of window.

9. Provide Glass Setting Blocks at 1/4 points.

10. Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

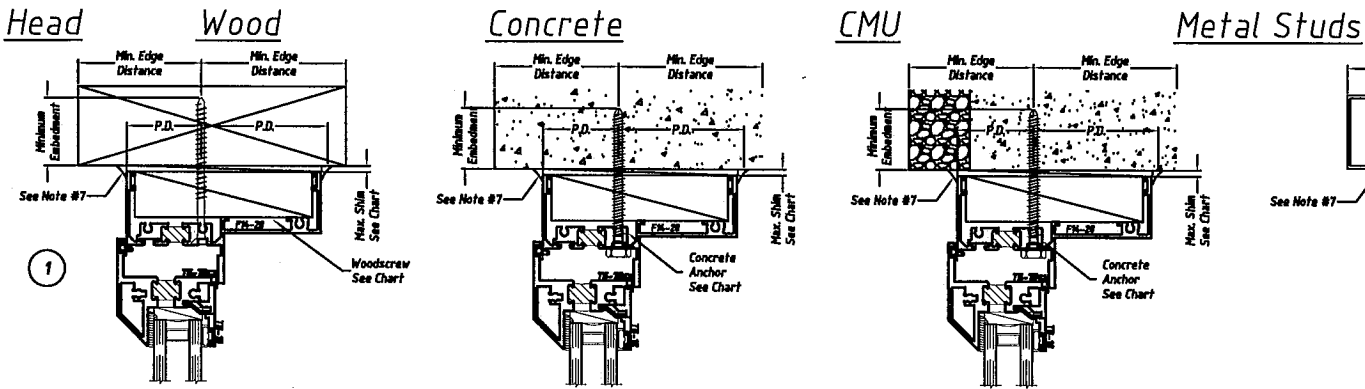
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Scale: NTS	Drawn by: K. Snader
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Winco Window Co. 6200 Maple Ave. St. Louis, Mo. 63130 PHONE (314)725-8088 FAX (314)725-1419	75
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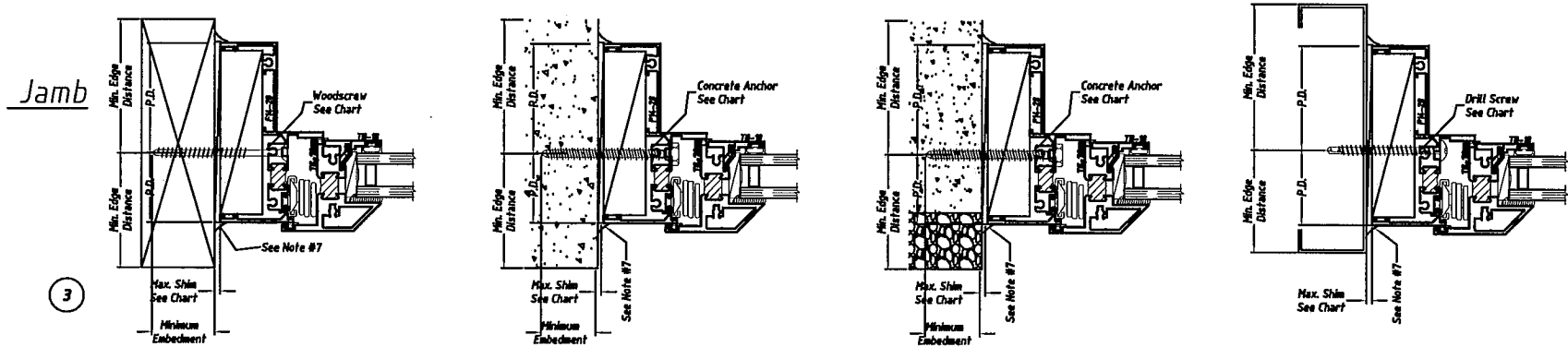
WINCO Product: 1450S PO - Trim Clip	
Configuration: Single Hung	
Certification: Non Impact	

Fastener Installation Requirements			
Location Substrate	Head and Jamb (Fastener)		
	Embedment (Min)	ED (Min)	PD (Min)
Wood	#12 Wood Screw @ 5-1/2" @ Max O.C.		
	1-1/2"	1"	1-1/2"
Concrete	1/4" Dia. Powers Tapper + @ 10" Max. O.C.		
	1-3/4"	3"	1-1/4"
CMU	1/4" Dia. Buildex Powers Tapper + @ 3-1/2" Max. O.C.		
	1-1/2"	3"	1-1/2"
Metal Stud	1/4" Dia. Buildex Tek @ 9-1/2" Max. O.C.		
	N/A	3/8"	1-1/4"

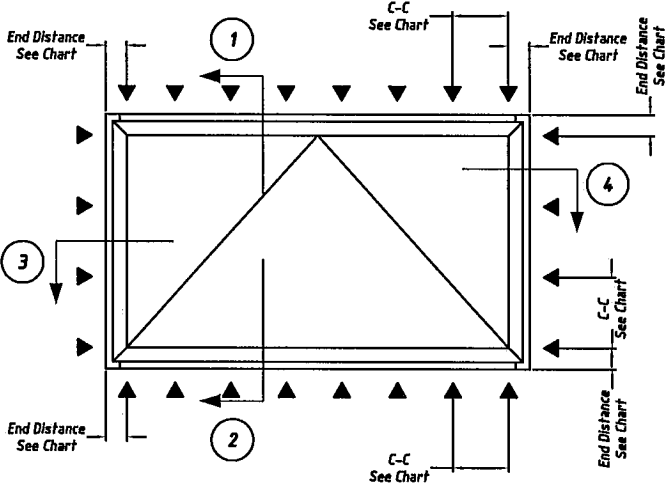
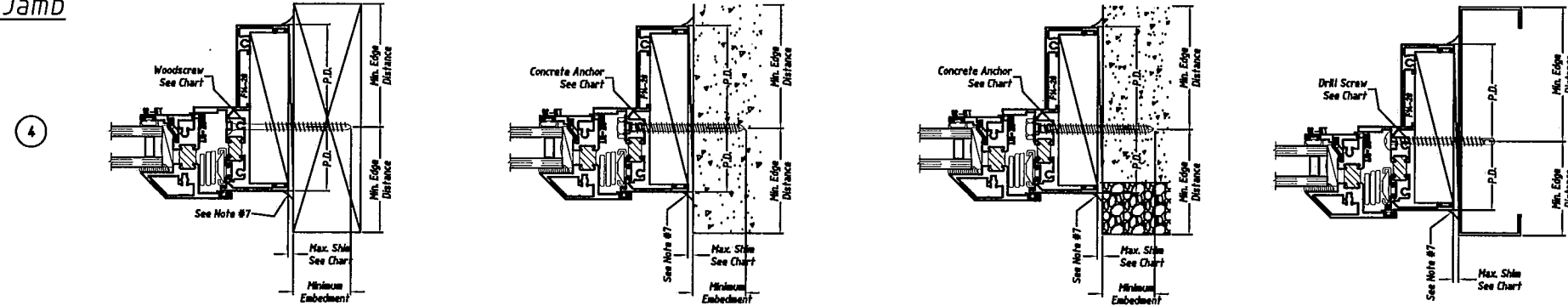


Sill

FOR SILL DETAILS SEE 1450S RECEPTOR DRAWINGS



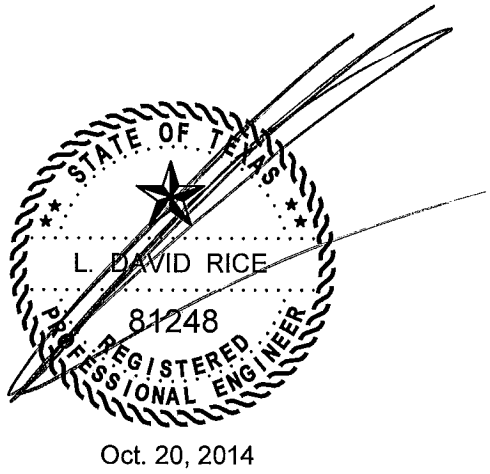
Jamb



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  - Maximum shim thickness of 1/4" permitted at each fastener location. Shims shall be non-compressible and load bearing type.
  - These drawings depict the details necessary to meet structural load requirements. Continuous perimeter seal required..
  - 4" Max. edge distance from corner of window.
  - Provide Glass Setting Blocks at 1/4 points.
  - Fasteners shall not be installed through the thermal break nor within 3/8" of the thermal break.

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